

# PUBLIC HEALTH (PH)

## PH 10000 EXPLORING CAREERS IN PUBLIC HEALTH 1 Credit Hour

Provides an overview of the diverse career opportunities available in the field. Explores various public health issues from the perspectives of public health professionals from the core disciplines in public health: social behavioral sciences, environmental health, health policy and management, epidemiology and biostatistics. Students learn about how public health professionals approach issues and the types of professional roles and activities they bring to addressing each issue.

**Prerequisite:** None.

**Schedule Type:** Lecture

**Contact Hours:** 1 lecture

**Grade Mode:** Standard Letter

## PH 10001 INTRODUCTION TO PUBLIC HEALTH 3 Credit Hours

An overview of the evolution and practices of the dynamic field of public health in the United States and globally. Students are introduced to the structure and functions of public health organizations and public health practice.

**Prerequisite:** None.

**Schedule Type:** Lecture

**Contact Hours:** 3 lecture

**Grade Mode:** Standard Letter

## PH 10002 INTRODUCTION TO GLOBAL HEALTH (DIVG) 3 Credit Hours

An overview of the biological, social and environmental contributors to health and diseases in populations around the world, including case studies of selected infectious diseases, nutritional deficiencies and health effects of environmental change.

**Prerequisite:** None.

**Schedule Type:** Lecture

**Contact Hours:** 3 lecture

**Grade Mode:** Standard Letter

**Attributes:** Diversity Global

## PH 10003 EXPLORING CAREERS IN GLOBAL HEALTH 1 Credit Hour

Course provides students with an introduction to global health and an overview of the diverse career opportunities available in the field. The global health sector is evolving as one of the primary career destinations and is moving beyond the traditional roles of science, pharmacy, medicine and nursing; additional areas also include communications, technology, data scientists, finance, management, legal, linguistics, international relations, and most important, cross functional skills are needed.

**Prerequisite:** None.

**Schedule Type:** Lecture

**Contact Hours:** 15 lecture, 0 lab, 0 other

**Grade Mode:** Standard Letter

## PH 10195 SPECIAL TOPICS IN PUBLIC HEALTH 1-3 Credit Hours

(Repeatable for credit) Subject varies depending on the emerging issue.

**Prerequisite:** None.

**Schedule Type:** Lecture

**Contact Hours:** 1-3 lecture

**Grade Mode:** Standard Letter

## PH 15092 PUBLIC HEALTH FIELD EXPERIENCE I (ELR) 1-3 Credit Hours

(Repeatable for credit) Entry-level internship experience in a public health setting under the supervision of a site preceptor and university supervisor. Students gain experience in public health work.

**Prerequisite:** Special approval.

**Schedule Type:** Practical Experience

**Contact Hours:** 3-10 other

**Grade Mode:** Satisfactory/Unsatisfactory

**Attributes:** Experiential Learning Requirement

## PH 20000 PUBLIC HEALTH PROFESSIONAL PRACTICE I 1 Credit Hour

Professional development course designed to expose future public health leaders to the diverse field of public health and develop attainable career goals. Student will begin the development of personal goals and a portfolio of work that will build during the entire program. The understanding of public health as a profession will be fostered.

**Prerequisite:** Sophomore standing.

**Schedule Type:** Lecture

**Contact Hours:** 1 lecture

**Grade Mode:** Standard Letter

## PH 20001 ESSENTIALS OF EPIDEMIOLOGY 3 Credit Hours

Students are introduced to the strategies adopted by public health professionals to study distribution and identification of important biologic, social and environmental determinants of diseases and health-related states in specific populations.

**Prerequisite:** None.

**Schedule Type:** Lecture

**Contact Hours:** 3 lecture

**Grade Mode:** Standard Letter

## PH 20010 INTRODUCTION TO PUBLIC HEALTH INFORMATICS 3 Credit Hours

Provides an overview of informatics principles applied in public health settings. Issues addressed include definitions, approaches, competencies, applications and the national health information network. Topical areas are digital literacy, electronic communication, system development, information use, project management, procurement, accountability, research, data standards, databases, human resource management, and confidentiality and security.

**Prerequisite:** None.

**Schedule Type:** Lecture

**Contact Hours:** 3 lecture

**Grade Mode:** Standard Letter

## PH 20015 ZOMBIE OUTBREAK 3 Credit Hours

Teaches the basic survival skills necessary to protect you, your family, and the public from a variety of natural and manmade "apocalypses". Students apply the basics of emergency Public Health management to a zombie outbreak.

**Prerequisite:** None.

**Schedule Type:** Lecture

**Contact Hours:** 3 lecture

**Grade Mode:** Standard Letter

## PH 20195 SPECIAL TOPICS IN PUBLIC HEALTH 1-3 Credit Hours

(Repeatable for credit) Subject varies depending on the emerging issue.

**Prerequisite:** None.

**Schedule Type:** Lecture

**Contact Hours:** 1-3 lecture

**Grade Mode:** Standard Letter

**PH 20392 COMMUNITY HEALTH WORKER CERTIFICATION II-  
INTERNSHIP (ELR) 3 Credit Hours**

Internship course providing necessary contact hours for the Ohio Community Health Worker Certification.

**Prerequisite:** PH 23000.

**Schedule Type:** Practical Experience

**Contact Hours:** 9 other

**Grade Mode:** Standard Letter-IP

**Attributes:** Experiential Learning Requirement

**PH 22001 PLAGUES AND PANDEMICS: HOW INFECTION SHAPED  
CULTURE AND HISTORY 3 Credit Hours**

Infectious diseases continue to affect us all in the present, and plagues have shaped the course of history. From the Justinian plague in the 6th Century to the decimation of Native populations in the US by smallpox to the 1918 influenza pandemic, human history has been influenced by microbes—and our culture, in turn, can affect the generation of new plagues. This course is appropriate both for humanities majors looking for an introduction to infectious diseases as well as science majors looking to better understand infectious diseases in their historical and cultural context, and the way these diseases have (and continue to) shape history. Ultimately, students should be able to understand the basics of infectious disease epidemiology and disease control within a wide cultural and historical context. The course will encompass various topics in microbiology and infectious disease, using primarily popular non-fiction books on these subjects as sources.

**Prerequisite:** None.

**Schedule Type:** Lecture, Seminar

**Contact Hours:** 3 lecture

**Grade Mode:** Standard Letter

**PH 23000 COMMUNITY HEALTH WORKER CERTIFICATION I 3 Credit  
Hours**

Students will be guided through the competencies of a Community Health Worker (CHW). Students will be introduced to soft skills and culture including but not limited to basic health care, community resources, advocacy, communication and service skills related to working with communities. Lifespan development will also be covered including but not limited to: Basic health information and education regarding prevention and treatment throughout the lifespan. Prerequisite: None

**Schedule Type:** Lecture

**Contact Hours:** 3 lecture

**Grade Mode:** Standard Letter

**PH 25092 PUBLIC HEALTH FIELD EXPERIENCE II (ELR) 1-3 Credit  
Hours**

(Repeatable for credit) Mid-level internship experience in a public health setting under the supervision of a site preceptor and university supervisor. Students gain experience in public health work.

**Prerequisite:** Special approval.

**Schedule Type:** Practical Experience

**Contact Hours:** 3-10 other

**Grade Mode:** Satisfactory/Unsatisfactory

**Attributes:** Experiential Learning Requirement

**PH 30000 PUBLIC HEALTH PROFESSIONAL PRACTICE II 1 Credit  
Hour**

Professional development course designed to further prepare future public health leaders to the diverse field of public health. The career portfolio will be further developed. Career goals will be re-evaluated and the strategies for goal attainment reassessed. The understanding of public health as a profession will be further developed. Graduate or professional education as an option will be discussed in greater detail.

**Prerequisite:** PH 20000; and junior standing.

**Schedule Type:** Lecture

**Contact Hours:** 1 lecture

**Grade Mode:** Standard Letter

**PH 30002 INTRODUCTORY BIostatISTICS 3 Credit Hours**

An introduction to statistical methodology in the field of public health. Students learn the statistical skills to read scientific articles, understand the statistical methods used and interpret the results on their own.

**Prerequisite:** Any kent core mathematics; and critical reasoning course.

**Schedule Type:** Lecture

**Contact Hours:** 3 lecture

**Grade Mode:** Standard Letter

**PH 30004 PUBLIC HEALTH RESEARCH 3 Credit Hours**

Approaches involved in defining public health problems and steps involved in conducting research about these problems. Students are introduced to how to evaluate published public health research.

**Prerequisite:** PH 30002; and ENG 21011 or HONR 10297.

**Schedule Type:** Lecture

**Contact Hours:** 3 lecture

**Grade Mode:** Standard Letter

**PH 30005 SOCIAL AND BEHAVIORAL SCIENCE THEORIES IN PUBLIC  
HEALTH 3 Credit Hours**

An overview of the contributions of the social and behavioral sciences to human health behavior, including application of studies in the area of health promotion, health protection and disease prevention in public health.

**Prerequisite:** None.

**Schedule Type:** Lecture

**Contact Hours:** 3 lecture

**Grade Mode:** Standard Letter

**PH 30006 INTRODUCTION TO ENVIRONMENTAL HEALTH AND SAFETY  
3 Credit Hours**

Introduction: the environment at risk; environmental epidemiology, environmental toxicology, environmental policy and regulation, watershed management, safe drinking water, wastewater management, vector-borne and zoonotic disease, air quality, solid and hazardous waste, food protection, radiation safety and injury prevention, occupational health and safety, total worker health, the built environment.

**Prerequisite:** None.

**Schedule Type:** Lecture

**Contact Hours:** 3 lecture

**Grade Mode:** Standard Letter

**PH 30007 PREVENTION AND CONTROL OF DISEASES 3 Credit  
Hours**

Provides an overview of concepts involved in biological mechanisms of disease at cell, individual and community levels, provides insight into strategies used in preventing and controlling diseases at the population and/or community level within this framework.

**Prerequisite:** None.

**Schedule Type:** Lecture

**Contact Hours:** 3 lecture

**Grade Mode:** Standard Letter

**PH 30009 ENVIRONMENTAL HEALTH AND SAFETY REGULATIONS AND POLICY 3 Credit Hours**

Develops a framework for understanding the regulatory structure of environmental and occupational health and safety regulations and policy in the U.S. Federal, state, and local levels of government are reviewed as well as major agencies and regulations.

**Prerequisite:** PH 30006.

**Schedule Type:** Lecture

**Contact Hours:** 3 lecture

**Grade Mode:** Standard Letter

**PH 30012 COMMUNICABLE DISEASES 3 Credit Hours**

A survey of communicable diseases of global public health significance, including the epidemiology and forensics associated with disease transmission, vaccination strategies and practices, and human responses to infectious disease. Students are introduced to infectious disease pathogens and the practices and procedures for their surveillance, handling and control.

**Prerequisite:** PH 20001 and 30007.

**Schedule Type:** Lecture

**Contact Hours:** 3 lecture

**Grade Mode:** Standard Letter

**PH 30014 STRATEGIES FOR PREVENTION IN PUBLIC HEALTH 3 Credit Hours**

Provides a review of population strategies for health promotion and disease prevention from a social-ecological perspective, highlighting the importance of evidence-based, equitable, and ethical approaches.

**Prerequisite:** PH 30007.

**Schedule Type:** Lecture

**Contact Hours:** 3 lecture

**Grade Mode:** Standard Letter

**PH 30015 UNITED STATES HEALTH CARE SYSTEM 3 Credit Hours**

Provides an overview of the U.S. healthcare delivery system, including operations, stakeholders and the role of government with a particular emphasis on public health's role in health care. Students gain an understanding of inpatient and outpatient services, the various roles of healthcare professionals, private and public financing and the impact of managed care. The primary focus is the public health system.

**Prerequisite:** None.

**Schedule Type:** Lecture

**Contact Hours:** 3 lecture

**Grade Mode:** Standard Letter

**PH 30020 FUNDAMENTALS OF HEALTH PRIVACY 1 Credit Hour**

This course will provide an overview of compliance in healthcare privacy and security within the context of the Health Insurance Portability and Accountability Act (HIPAA). Current topics such as electronic health records and the challenges posed by social media will be explored.

**Prerequisite:** None.

**Schedule Type:** Lecture

**Contact Hours:** 1 lecture

**Grade Mode:** Standard Letter

**PH 30025 FUNDAMENTALS OF HEALTHCARE COMPLIANCE 1 Credit Hour**

This course will provide an overview of fraud, waste, and abuse compliance in the healthcare industry. The practical and legal basis for compliance programs will be explored as well as their creation, implementation, and maintenance.

**Prerequisite:** None.

**Schedule Type:** Lecture

**Contact Hours:** 1 lecture

**Grade Mode:** Standard Letter

**PH 30033 PUBLIC HEALTH POLICY AND DECISION-MAKING 3 Credit Hours**

An introductory survey of the formulation to implementation of public health policies for various public health issues, and the use of practical administrative tools such as strategic planning, use of economic evaluation tools and decision analysis.

**Prerequisite:** None.

**Schedule Type:** Lecture

**Contact Hours:** 3 lecture

**Grade Mode:** Standard Letter

**PH 30040 PUBLIC HEALTH LABORATORY SAFETY, SECURITY AND EMERGENCY PREPAREDNESS 3 Credit Hours**

Safe operations within the public health laboratory require specific knowledge and skills sets. Upon completion of this course, the student will (1) understand the public health laboratory infrastructure; (2) work safely and responsibly with equipment and reagents to investigate laboratory-based public health problems; (3) define the laws, policies and guidance documents related to public health laboratory activities; and (4) respond to simulated laboratory safety and security emergencies.

**Prerequisite:** PH 30006 and 30012.

**Schedule Type:** Combined Lecture and Lab

**Contact Hours:** 1 lecture, 2 lab

**Grade Mode:** Standard Letter

**PH 30101 SOLID AND HAZARDOUS WASTE MANAGEMENT 3 Credit Hours**

Solid and hazardous waste programs and practices are explored. Pollution prevention, safety, sanitation practices, sustainability concepts, management, and regulations pertinent to solid and hazardous waste such as RCRA, are discussed and studied. Consumption, garbage handling, landfill design and disposal, sustainability concepts, reuse, recycling, composting and other waste strategies are presented. Hazardous waste and materials issues in the environment are introduced; such as HW disposal, TSD Facilities, underground storage tanks, "Superfund", brownfields and related issues.

**Prerequisite:** PH 30006.

**Schedule Type:** Field Experience, Lecture

**Contact Hours:** 2.67 lecture, .33 other

**Grade Mode:** Standard Letter

**PH 30102 AIR QUALITY AND POLLUTION CONTROL 3 Credit Hours**

Basic survey of air pollution and its control. The respiratory system and the bodies response to air pollutants of different types is reviewed and related illnesses such as asthma are studied. The Clean Air Act, NESHAPS and related regulations are surveyed. Ambient air quality standards, the effect of climate and other air pollution concepts are reviewed. Measurement and control methods for both particulate and gaseous contaminants are surveyed.

**Prerequisite:** PH 30006.

**Schedule Type:** Field Experience, Lecture

**Contact Hours:** 2.67 lecture, .33 other

**Grade Mode:** Standard Letter

**PH 30103 FOOD PROTECTION 3 Credit Hours**

Topics in foodborne disease prevention and food sanitation relative to quality control, food service and processing systems are introduced. Foodborne disease agents, microbiology, epidemiology and outbreak investigation techniques are explored. The regulatory process and agencies at the wholesale, retail and food service levels are introduced. Ohio food regulations are covered, including the Ohio Uniform Food Code. Basic preparation of students to conduct food service inspections and foodborne disease investigations as part of agency regulatory programs. The opportunity to earn the National Restaurant Association, ServSafe Manager Certification is also provided.

**Prerequisite:** PH 30006.

**Schedule Type:** Field Experience, Lecture

**Contact Hours:** 2.67 lecture, .33 other

**Grade Mode:** Standard Letter

**PH 30105 WATER AND WASTEWATER MANAGEMENT 3 Credit Hours**

Explores the issues surrounding water pollution and human health, and the environmental treatment systems developed to provide safe water and sewage disposal. Private water and sewage systems and public water and sewage systems are studied. Federal and State regulations, including the Safe Drinking Water Act and Clean Water Act are reviewed. Field experiences are included.

**Prerequisite:** PH 30006.

**Schedule Type:** Field Experience, Lecture

**Contact Hours:** 2.67 lecture, .33 other

**Grade Mode:** Standard Letter

**PH 30106 ENVIRONMENTAL TOXICOLOGY 3 Credit Hours**

Basic toxicological principles applied to studies of environmental health are surveyed. Basic concepts of toxicological testing, dose response, animal and other models, dose curves, LD50's, risk assessment, threshold theories, classifications of harmful effects, environmental pathways, metabolism and elimination are reviewed. Biological effects and the effect of select toxins on body systems are reviewed. Major groups of toxins and their effects are reviewed. Toxin behavior in air, water, wastewater, soil and environmental media are studied.

**Prerequisite:** PH 30006.

**Schedule Type:** Laboratory, Lecture

**Contact Hours:** 2.8 lecture, .2 lab

**Grade Mode:** Standard Letter

**PH 30110 HAZARDOUS MATERIALS MANAGEMENT 3 Credit Hours**

Covers the use of hazardous materials. Emphasis is on the safe management of hazardous materials in the workplace and community, their procurement, storage, regulation, pollution problems, use, release, clean up, disposal, and their control, to prevent workplace and community health and safety problems.

**Prerequisite:** PH 30006.

**Schedule Type:** Field Experience, Lecture

**Contact Hours:** 2.67 lecture, .33 lab

**Grade Mode:** Standard Letter

**PH 30195 SPECIAL TOPICS IN PUBLIC HEALTH 1-3 Credit Hours**

(Repeatable for credit) Subject varies depending on the emerging issue.

**Prerequisite:** None.

**Schedule Type:** Lecture

**Contact Hours:** 1-3 lecture

**Grade Mode:** Standard Letter

**PH 31005 SOCIAL DETERMINANTS OF HEALTH AND HEALTH BEHAVIOR 3 Credit Hours**

Provides students with an overview of the social determinants of health behaviors and health outcomes. Students examine the relationships among the root causes of health disparities (education, income, inequality, race-ethnicity, social status-class, and gender) and more proximal causes of these disparities (e.g., access to and quality of medical care, work conditions, lifestyles, living conditions, social capital). These relationships are examined within ecological and multi-level theoretical frameworks.

**Prerequisite:** PH 30005.

**Schedule Type:** Lecture

**Contact Hours:** 3 lecture

**Grade Mode:** Standard Letter

**PH 32005 EMERGING ISSUES IN COMMUNITY HEALTH 3 Credit Hours**

Provides students with exposure to touchstone issues in public health programming that have social and behavioral science implications. Topics reflect emergent priority areas and are expected to vary from semester to semester. Examples of current, emerging issues that may be covered include the Healthy People 2020 initiative, leading health indicators, role of CDC, state and local health departments and NGOs in promoting health behaviors, program recruitment, retention, evaluation and generalization challenges, ethical issues including informed consent and voluntary change, funding challenges for prevention programs, grant writing exposure, role of politics in public health programming, evidenced-based practices and practice-based evidence.

**Prerequisite:** None.

**Schedule Type:** Lecture

**Contact Hours:** 3 lecture

**Grade Mode:** Standard Letter

**PH 34001 PUBLIC HEALTH INTERVENTIONS I 3 Credit Hours**

Provides an overview of the planning and development of public health interventions including environmental, social, and behavioral public health issues from a social-ecological perspective, with attention to evidence-based, theoretical, and ethical approaches.

**Prerequisite:** PH 30005.

**Schedule Type:** Lecture

**Contact Hours:** 3 lecture

**Grade Mode:** Standard Letter

**PH 34002 PUBLIC HEALTH INTERVENTIONS II 3 Credit Hours**

Provides an overview of public health intervention implementation, evaluation, and sustainability, with examples of public health interventions in practice and exploration into the future of public health interventions.

**Prerequisite:** PH 34001.

**Schedule Type:** Lecture

**Contact Hours:** 3 lecture

**Grade Mode:** Standard Letter

**PH 35001 COMMUNITY-BASED PUBLIC HEALTH PRACTICE (ELR) 3 Credit Hours**

Course focuses on the fundamentals of applying community engagement, organization, and development principles to create successful community public health interventions. Addresses work in at-risk and diverse communities using methods optimal for public health practice, including public health ethics, faith-based initiatives in community health, community health assessment and measurement methods, coalition building, and frameworks for developing health policy. Will also review the basic principles of health-related non-profit organization management and support.

**Prerequisite:** None.

**Schedule Type:** Lecture, Practical Experience

**Contact Hours:** 3 lecture

**Grade Mode:** Standard Letter

**Attributes:** Experiential Learning Requirement

**PH 35005 ADVOCACY AND ACTIVISM IN PUBLIC HEALTH 3 Credit Hours**

Public health advocacy and activism are areas of increasing importance for those in public health at both national and international levels because they offer more direct approaches to achieve lasting social and political change. This course provides a foundation to the theory, evidence-base and strategies that can be harnessed to bring about change to improve the lives and health of populations, and explains how activism has an essential role in public health policy and practice.

**Prerequisite:** Junior or senior standing.

**Schedule Type:** Lecture

**Contact Hours:** 3 lecture

**Grade Mode:** Standard Letter

**PH 35010 RACISM: A PUBLIC HEALTH CRISIS 3 Credit Hours**

Across the US, an increasing number of communities have declared racism as a public health crisis. This declaration is not based on an isolated incident, rather, it is the acknowledgement that racism is structural and has been embedded within the institutional policies and societal norms that are present in our everyday lives. This course will: Recognize racism in the US as a significant cause of poor health, disease, and persistent dis-ease among Black Americans; Explore the relationship between racism and health through a historic accounting of social, political, economic, and environmental conditions post-slavery through current events; and, identify how, research, and advocacy can address anti-Black racism and promote health equity.

**Prerequisite:** None.

**Schedule Type:** Lecture

**Contact Hours:** 3 lecture, 0 lab, 0 other

**Grade Mode:** Standard Letter

**PH 40000 PUBLIC HEALTH PROFESSIONAL PRACTICE III 1 Credit Hour**

Professional development course designed to launch graduates into the workforce or graduate school. The career portfolio, resume, and cover letters will be finalized. Interviewing and application skills will be developed. Working with a College of Public Health career counselor students will develop job search strategies and begin the application process. Students continuing their education in a graduate program will work on application materials.

**Prerequisite:** PH 30000; and senior standing.

**Schedule Type:** Lecture

**Contact Hours:** 1 lecture

**Grade Mode:** Standard Letter

**PH 40013 CLINICAL EPIDEMIOLOGY BASICS 3 Credit Hours**

The purpose of this course is to develop an understanding of clinical research, Good Clinical Practices, research environments, and methods used in clinical research. The student will gain an understanding of the use of clinical investigation from the product development stage to the application of investigations in contract research organization. Ethical implications and regulatory issues will be examined.

**Prerequisite:** PH 20001.

**Schedule Type:** Lecture

**Contact Hours:** 3 lecture

**Grade Mode:** Standard Letter

**PH 40014 CLINICAL TRIALS MANAGEMENT 3 Credit Hours**

Course examines the good clinical practices guidelines. Students learn how to conduct and manage clinical trials; understand clinical trials data; develop instruments and protocols; recognize quality control and data issues; know approaches to recruitment, retention and participant assessment; identify adverse events and measurement of response variables; and acquire skill in study close-out procedures.

**Prerequisite:** PH 40013.

**Schedule Type:** Lecture

**Contact Hours:** 3 lecture

**Grade Mode:** Standard Letter

**PH 40015 SCIENTIFIC WRITING FOR CLINICAL RESEARCH 3 Credit Hours**

(Cross-listed with EPI 50015) Course provides students the tools to develop proficiency in scientific reading, to conduct presentations and to demonstrate skill in scientific writing, with the goal of preparing clinical researchers to be able to communicate findings to the science community and the general population. Course includes an examination of the science literature in clinical trials research.

**Prerequisite:** ENG 21011 or HONR 10297.

**Schedule Type:** Lecture

**Contact Hours:** 3 lecture

**Grade Mode:** Standard Letter

**PH 40017 PHARMACOEPIDEMIOLOGY 3 Credit Hours**

(Cross-listed with EPI 50017) Introduction to the field of pharmacoepidemiology, which uses epidemiology methods to understand medication use and distribution at the population level. Course examines risk-benefit and epidemiology approaches to examining medication use and therapeutic trials. Drug and device manufacturing to market are explored.

**Prerequisite:** PH 40013 and PH 40014.

**Schedule Type:** Lecture

**Contact Hours:** 3 lecture

**Grade Mode:** Standard Letter

**PH 40018 REGULATORY AFFAIRS IN CLINICAL RESEARCH 3 Credit Hours**

(Cross-listed with EPI 50018) Course provides the tools for students to develop an understanding of the researcher and organization responsibility in research and development of clinical trials products. Students understand regulations from the government and industry, privacy concerns, liability and ethical issues related to clinical trials research. Examples from the field are explored in detail.

**Prerequisite:** PH 40013 and PH 40014.

**Schedule Type:** Lecture

**Contact Hours:** 3 lecture

**Grade Mode:** Standard Letter

**PH 40020 DISASTER PREPAREDNESS 3 Credit Hours**

College-level version of the FEMA "Are You Ready?" training designed to prepare average citizens to respond to emergency situations. Students learn how to appropriately prepare for and respond to natural and contrived emergencies, such as floods, tornados, fires, terrorism, etc. Students prepare an emergency response kit for home use, using materials from home or store, and learn how to shelter-in-place.

**Prerequisite:** None.

**Schedule Type:** Lecture

**Contact Hours:** 3 lecture

**Grade Mode:** Standard Letter

**PH 40040 FORENSIC EPIDEMIOLOGY 3 Credit Hours**

Introduction to the principles and practices of investigative epidemiology. Inherent to the course is the understanding of how public health law impacts data collection and representation. Students learn the roles and responsibilities of the criminal justice, public health, and first responder communities as they relate to the investigation of public health crimes. Additionally, students use real case studies to apply knowledge in the investigation of mock public health crimes.

**Prerequisite:** Special approval.

**Schedule Type:** Lecture

**Contact Hours:** 3 lecture

**Grade Mode:** Standard Letter

**PH 40050 PUBLIC HEALTH AND FIRST RESPONDER LINKAGES 3 Credit Hours**

Capstone experience meant to unite students of public health with their professional partners. Students interact in the classroom and at the partners' place of business to link theory and practice, gain real-world knowledge and cement partnerships.

**Prerequisite:** PH 40040; and special approval.

**Schedule Type:** Field Experience, Lecture

**Contact Hours:** 1 lecture, 2 other

**Grade Mode:** Standard Letter

**PH 40060 PUBLIC HEALTH LABORATORY METHODS 3 Credit Hours**

(Slashed with EHS 50060) Course introduces the student to the fundamental theory and hands on use to track specimen collection and laboratory analysis. Environmental specimens are examined for their public health importance using classical and modern techniques. Students learn classical laboratory methods and their modern use in the laboratory environment. Examples include culture and microscopic identification of microorganisms, identification of disease vectors, detection of newborn disease and detection of terrorism agents.

**Prerequisite:** BSCI 30140 or CHEM 10062 or CHEM 10971 or PH 30006.

**Schedule Type:** Combined Lecture and Lab

**Contact Hours:** 2 lecture, 1 lab

**Grade Mode:** Standard Letter

**PH 40092 INTERNATIONAL HEALTH PRACTICUM (ELR) 3-6 Credit Hours**

(Repeatable for credit) A supervised internship in global/international health.

**Prerequisite:** PH 10002; and junior or senior standing.

**Schedule Type:** Practical Experience

**Contact Hours:** 10-20 other

**Grade Mode:** Satisfactory/Unsatisfactory

**Attributes:** Experiential Learning Requirement

**PH 40100 VECTOR-BORNE AND ZONOTIC DISEASES 3 Credit Hours**

Presents a broad overview of major considerations related to human health and the vector-borne diseases transmitted by rodents and arthropods (insects and arachnids). Control measures, including rodent control, local mosquito control programs, and integrated pest management (IPM) concepts with safe pesticide use are reviewed. Application of FIFRA regulations are presented. An overview of issues associated with zoonotic diseases transmitted by animals, such as rabies, and their control are also included. Vector and reservoir relationships are explored.

**Prerequisite:** PH 30006.

**Schedule Type:** Field Experience, Lecture

**Contact Hours:** 2.67 lecture, .33 other

**Grade Mode:** Standard Letter

**PH 40101 OCCUPATIONAL HEALTH AND SAFETY 3 Credit Hours**

Introduction to workplace safety and industrial hygiene. The OSHA regulations and procedures are reviewed and workplace safety and health principles studied. Students learn how to anticipate, recognize, evaluate and control workplace hazards. Safety issues are surveyed; such as confined space, electrical LOTO, trenching, fall protection, walking and working surfaces. Industrial hygiene issues are surveyed; such as air contaminants, hazard communication, respiratory protection, ergonomics, noise control and bloodborne pathogens. Control measures for workplace hazards are discussed.

**Prerequisite:** PH 30006.

**Schedule Type:** Field Experience, Lecture

**Contact Hours:** 2.67 lecture, .33 other

**Grade Mode:** Standard Letter

**PH 40109 LABORATORY SAFETY AND HYGIENE 3 Credit Hours**

(Crosslisted with EHS 50109) Basic introduction to laboratory safety, chemical hygiene, and biosafety. Includes the research compliance programs of institutions (IBC, IACUC, IRB, RSC) and the OSHA Chemical Hygiene Standard requirements and program responsibilities. General lab safety concepts are reviewed, along with chemical handling and storage, fumehoods and ventilation, hazardous waste disposal, radiation safety, and lab design. Basic principles of biosafety are covered, BSL 1-4 levels, biosafety cabinets, select agents, bloodborne pathogens, NIH Guidelines, biosecurity and animal use.

**Prerequisite:** PH 30006.

**Schedule Type:** Field Experience, Lecture

**Contact Hours:** 2.67 lecture, .33 other

**Grade Mode:** Standard Letter

**PH 40112 INSTITUTIONAL AND RECREATIONAL ENVIRONMENTAL, OCCUPATIONAL HEALTH AND SAFETY 3 Credit Hours**

Introduces the environmental and occupational health and safety issues unique to institutional settings and licensed facilities; such as, hospitals, nursing homes, K-12 schools, universities, R&D, correctional facilities, and childcare facilities; and in various recreational environments, such as swimming pools, spas, bathing beaches, marinas, campgrounds, playgrounds and natural areas.

**Prerequisite:** PH 30006.

**Schedule Type:** Field Experience, Lecture

**Contact Hours:** 2.67 lecture, .33 other

**Grade Mode:** Standard Letter

**PH 40191 SEMINAR IN PUBLIC HEALTH 1-3 Credit Hours**  
(Repeatable for credit) Seminar on current and important topics in public health. Subject matter varies depending on topic.

**Prerequisite:** None.

**Schedule Type:** Seminar

**Contact Hours:** 1-3 other

**Grade Mode:** Standard Letter

**PH 40195 SPECIAL TOPICS IN PUBLIC HEALTH 1-3 Credit Hours**  
(Repeatable for credit) Subject varies depending on the emerging issue.

**Prerequisite:** Junior or senior standing.

**Schedule Type:** Lecture

**Contact Hours:** 1-3 lecture

**Grade Mode:** Standard Letter

**PH 40196 INDIVIDUAL INVESTIGATION IN PUBLIC HEALTH 1-3 Credit Hours**

(Repeatable for maximum 6 credits) Individual undergraduate investigation or research on specific public health issues.

**Prerequisite:** Junior or senior standing; and special approval.

**Schedule Type:** Individual Investigation

**Contact Hours:** 1-3 other

**Grade Mode:** Standard Letter

**PH 40200 THE BUILT ENVIRONMENT 3 Credit Hours**

Provides a basic understanding of the relationships between poor housing and environmental health and safety problems. It explores the physiological and psychological aspects of shelter. Students gain a basic understanding of housing codes, fire codes, zoning, and related regulatory issues. Students explore housing related health problems; such as, indoor air quality, mold, asbestos, lead paint, and radon. Manufactured housing parks and agricultural labor camp regulations are also reviewed. The role of EH in community planning is explored. Health issues with urban sprawl and community design problems, utility problems such as urban run-off and pest problems, and other issues are reviewed. Elements of healthy community, community planning and environmental protection are introduced; such as new urbanism, walkable communities programs, environmental building design, green communities, urban gardening and LEED's.

**Prerequisite:** PH 30006.

**Schedule Type:** Field Experience, Lecture

**Contact Hours:** 2.67 lecture, .33 other

**Grade Mode:** Standard Letter

**PH 41000 ENVIRONMENTAL AND OCCUPATIONAL HEALTH AND SAFETY MANAGEMENT 3 Credit Hours**

Entails leadership and management principles in environmental and occupational health and safety (EOHS), and helps students develop skills needed to become an effective supervisor. Issues such as regulatory structure, program and community planning, policy development, budgeting, staffing and staff development, strategic planning, training, professionalism and assessment are reviewed. Board development, dealing with difficult people and situations, legal, social, political, and economic effects on EOHS programs are dealt with. Related issues such as ethics, human resources, workers comp, court appearances, media relations and communications are reviewed.

**Prerequisite:** PH 30006 and 30102 and 30105 and 30106; and senior standing.

**Schedule Type:** Lecture

**Contact Hours:** 3 lecture

**Grade Mode:** Standard Letter

**PH 41092 FIELD EXPERIENCE IN MEETING THE BASIC HEALTH AND HUMAN NEEDS (ELR) 3 Credit Hours**

(Repeatable for credit) Provides practical skills in simple, affordable appropriate technologies that can offer solutions for meeting basic health and human needs in the developing world at the household and community levels. Technologies are organized into five modules: 1) food, agriculture, and nutrition; 2) water and sanitation; 3) alternative household energy; 4) primary health care; and 5) community development needs and resource assessment. All five modules cover appropriate technologies that while meeting the basic needs have significant impact on health of the individuals and communities. Principles of participatory community development and sensitivity to cross-cultural, gender, and ecological issues are emphasized throughout the training.

**Prerequisite:** Special approval.

**Schedule Type:** Field Experience

**Contact Hours:** 8 other

**Grade Mode:** Satisfactory/Unsatisfactory

**Attributes:** Experiential Learning Requirement

**PH 42092 ENVIRONMENTAL, OCCUPATIONAL, HEALTH AND SAFETY INTERNSHIP (ELR) 4-6 Credit Hours**

The purpose of the environmental and occupational health and safety internship is to supplement the student in-class learning experiences with practical hand-on skills and work practice experiences that helps them develop the environmental competencies required for success in the field.

**Prerequisite:** Junior or senior standing; and special approval.

**Schedule Type:** Practical Experience

**Contact Hours:** 13.33-20 other

**Grade Mode:** Satisfactory/Unsatisfactory-IP

**Attributes:** Experiential Learning Requirement

**PH 43014 PUBLIC HEALTH AND MASS INCARCERATION 3 Credit Hours**

This course will examine incarceration using a public health lens. Students will examine the epidemiology of mass incarceration in the U.S., infectious and chronic diseases of those incarcerated, incarceration as a self-sustaining epidemic with generations of imprisonment, access to health care of those behind bars and on release, and the contagion of punishment including collateral damage to children, families and neighborhoods. The course will conclude with a public health model for ending mass incarceration.

**Prerequisite:** None.

**Schedule Type:** Lecture

**Contact Hours:** 3 lecture

**Grade Mode:** Standard Letter

**PH 43089 PLAGUES THAT SHAPED THE WORLD 3 Credit Hours**

(Cross-listed with EPI 53089 and and EPI 73089) Course examines the Bubonic plague, HIV/AIDS, Ebola and pandemic influenza outbreaks to introduce students to the fundamentals of public health, establishing epidemiological principles that explain how plagues erupt and propagate, decimate populations and alter cultures. Inherent in the course's discussion are the social determinants that fuel plague outbreaks and slow recovery. Examples of emerging infectious diseases and threats of bioterrorism are discussed as new plagues for which creative solutions are still required. Students take city excursions and a field trip to assess cultural changes resulting from historical plagues.

**Prerequisite:** None.

**Schedule Type:** Lecture

**Contact Hours:** 3 lecture

**Grade Mode:** Standard Letter

**PH 43092 INTERNSHIP IN CLINICAL TRIALS RESEARCH (ELR) 3-6 Credit Hours**

The internship will place students in a clinical trials setting (e.g., contract research organization, hospital, or academic setting) where they can gain hands on experience conducting clinical trials and clinical research. The internship is 300 hours and can be taken in the last one to two semesters. The purpose of the internship is to provide the student with practical experiences that will make them marketable for a position in clinical research upon graduation.

**Prerequisite:** PH 40013 and PH 40014.

**Schedule Type:** Practical Experience

**Contact Hours:** 3-6 other

**Grade Mode:** Satisfactory/Unsatisfactory

**Attributes:** Experiential Learning Requirement

**PH 44000 HEALTH DISPARITIES (DIVD) (WIC) 3 Credit Hours**

Understanding the factors involved in health disparities at the national and global level, and the impact of health disparities on public health.

**Prerequisite:** ENG 21011 or HONR 10297; and 15 credit hours of public health courses; and junior or senior standing.

**Schedule Type:** Lecture

**Contact Hours:** 3 lecture

**Grade Mode:** Standard Letter

**Attributes:** Diversity Domestic, Writing Intensive Course

**PH 44002 GLOBAL HEALTH IMMERSION: GENEVA, SWITZERLAND 3 Credit Hours**

Participants explore a number of health concerns, policies and challenges with global importance and implications. Students investigate current global health policies and themes, and become familiar with the major players in global health including governmental and nongovernmental organizations and multinational agencies. Presentations are given by experts currently working in various regions of the world to solve such pressing global problems as HIV/AIDS, post-war trauma, tuberculosis, refugee health, non-communicable disease prevention and environmental contamination.

**Prerequisite:** PH 10001 and PH 10002; and junior or senior standing; and special approval.

**Schedule Type:** Lecture

**Contact Hours:** 3 lecture

**Grade Mode:** Standard Letter

**PH 44003 ENVIRONMENTAL HEALTH ISSUES IN LOW- AND MIDDLE-INCOME COUNTRIES 3 Credit Hours**

Covers the important environmental health issues of concerns in low- and middle-income countries and appropriate intervention strategies. Topics include clean drinking water and sanitation, indoor air pollution, outdoor air pollution, environmental management, sustainability and health.

**Prerequisite:** Public health or anthropology major; and junior or senior standing.

**Schedule Type:** Lecture

**Contact Hours:** 3 lecture

**Grade Mode:** Standard Letter

**PH 44004 GLOBAL HEALTH IMMERSION: LATIN AMERICA 3 Credit Hours**

The principal objective of this summer intersession course is to immerse students into the history, culture and public health systems of Latin American countries Colombia Ecuador. Students will have the opportunity to visit major cities, i.e., Cali, Colombia, and Quito, Ecuador, rural areas, and well-known tourist destinations (Cartagena, Colombia, Otavalo, Ecuador). Students will gain an understanding of current scientific research on tropical diseases of local public health relevance, such as malaria. The course will focus on the basic biology of disease, mechanisms of transmission (epidemiology), and efforts to develop vaccines against malaria. The course is designed primarily for sophomores, juniors and seniors who are public health, nursing, or biological science majors. Master's level students will also be accepted. Knowledge of basic Spanish language is useful but not necessary.

**Prerequisite:** None.

**Schedule Type:** Lecture

**Contact Hours:** 3 lecture

**Grade Mode:** Standard Letter

**PH 44005 LEGAL ASPECTS OF HEALTH SERVICES MANAGEMENT 3 Credit Hours**

Provides an overview of legal and regulatory essentials in health services management. Provides a historical perspective on legal aspects of health care as well as an introduction to law, tort law, criminal aspects, contracts, civil procedure and trial practice as related to health care. Students examine how liability impacts corporate structures, health departments and health care professionals and examine issues related to patient consent, legal reporting requirements, labor relations and patient rights.

**Prerequisite:** None.

**Schedule Type:** Lecture

**Contact Hours:** 3 lecture

**Grade Mode:** Standard Letter

**PH 44010 PUBLIC HEALTH PLANNING AND FINANCE 3 Credit Hours**

Introduces students to business planning of health services. Students obtain skills in public health financial decision-making, including general principles of public health accounting, budgeting and financial planning.

**Prerequisite:** None.

**Schedule Type:** Lecture

**Contact Hours:** 3 lecture

**Grade Mode:** Standard Letter

**PH 44015 PUBLIC HEALTH MANAGEMENT 3 Credit Hours**

Provides an overview of management and leadership concepts, principles and practice as applied to public health management. Students learn basic skills in team-building, developing board relationships, strategic planning, fiscal management, marketing, conflict resolution and negotiation in healthcare management. Coursework integrates principles of ethics and professionalism, effective communication, managing complex and culturally diverse workplaces and the changing role of public health managers.

**Prerequisite:** None.

**Schedule Type:** Lecture

**Contact Hours:** 3 lecture

**Grade Mode:** Standard Letter



**PH 44020 PUBLIC HEALTH ETHICS IN PRACTICE, POLICY AND RESEARCH 3 Credit Hours**

Provides an introduction to public health ethics, including the key foundations, concepts and frameworks for evaluating ethical issues in the public health setting.

**Prerequisite:** None.

**Schedule Type:** Lecture

**Contact Hours:** 3 lecture

**Grade Mode:** Standard Letter

**PH 44025 PRINCIPLES OF PUBLIC HEALTH LEADERSHIP 3 Credit Hours**

Designed to introduce students to skill-sets and leadership practices necessary for successful public health leadership, with an emphasis on leading positive and sustainable change in real world situations. It also familiarizes students with key aspects of partnership building and advocacy for the purposes of improving health. Particular skills include coalition/partnership development, health advocacy, team building, mentoring and leadership.

**Prerequisite:** None.

**Schedule Type:** Lecture

**Contact Hours:** 3 lecture

**Grade Mode:** Standard Letter

**PH 44092 INTERNSHIP IN PUBLIC HEALTH (ELR) 3-6 Credit Hours**

(Repeatable for credit) Capstone internship experience in a public health setting under the supervision of a site preceptor and university supervisor. Students gain experience in public health work.

**Prerequisite:** Senior standing; and special approval.

**Schedule Type:** Practical Experience

**Contact Hours:** 3-6 other

**Grade Mode:** Satisfactory/Unsatisfactory

**Attributes:** Experiential Learning Requirement

**PH 45092 SERVICE LEARNING PRACTICUM IN COMMUNITY-BASED PUBLIC HEALTH (ELR) 3 Credit Hours**

This course is designed to provide an opportunity for students to engage in a variety of public health settings under the supervision of faculty. The practicum experience is focused on developing skills needed to implement change to improve population health, providing a setting in which students may integrate and apply the skills and knowledge acquired through their coursework. Students will be exposed to some of the benefits and challenges encountered by public health professionals on a routine basis.

**Prerequisite:** Junior or senior standing.

**Corequisite:** PH 35001.

**Schedule Type:** Lecture, Practical Experience

**Contact Hours:** 1 lecture, 6 other

**Grade Mode:** Standard Letter

**Attributes:** Experiential Learning Requirement

**PH 49000 CAPSTONE EXPERIENCE IN PUBLIC HEALTH (ELR) 3 Credit Hours**

Case studies of various strategies used in addressing various public health issues are discussed within an evaluative framework.

**Prerequisite:** 21 credit hours of public health courses; and junior or senior standing.

**Schedule Type:** Lecture

**Contact Hours:** 3 lecture

**Grade Mode:** Standard Letter

**Attributes:** Experiential Learning Requirement

**PH 60172 PRACTICUM SEMINAR IN PUBLIC HEALTH 1 Credit Hour**

(Repeatable 6 times for credit) Seminar component of the Practicum Experience; course must be taken at the same time as the Practicum Experience; students prepare a final portfolio and seminar presentation integrating theory and practice.

**Prerequisite:** Graduate standing.

**Corequisite:** PH 60192.

**Schedule Type:** Lecture

**Contact Hours:** 1 other

**Grade Mode:** Satisfactory/Unsatisfactory-IP

**PH 60192 PRACTICUM EXPERIENCE 5 Credit Hours**

(Repeatable for credit) Observational and participation in public health activities of a public health agency, hospital or other approved organization. The student completes the field experience with joint supervision from the university and approved organization or agency.

**Prerequisite:** Graduate standing.

**Corequisite:** PH 60172.

**Schedule Type:** Practical Experience

**Contact Hours:** 20 other

**Grade Mode:** Satisfactory/Unsatisfactory-IP

**PH 61199 INTEGRATIVE LEARNING EXPERIENCE 1 Credit Hour**

Students complete an integrative learning experience that demonstrates a synthesis of foundational and concentration competencies. Students in consultation with faculty select foundational and concentration-specific competencies appropriate to the student's educational and professional goals.

**Prerequisite:** Completion of 30 credit hours of Biostatistics (BST) or

Epidemiology (EPI) or Environmental Health Sciences (EHS) or Health

Policy and Management (HPM) or Social and Behavioral Sciences (SBS)

courses.

**Schedule Type:** Project or Capstone

**Contact Hours:** 1 other

**Grade Mode:** Satisfactory/Unsatisfactory

**PH 80199 DISSERTATION I 15 Credit Hours**

(Repeatable for credit) Registration for two semesters required, first semester dissertation work begins and continues until completion of 30 hours.

**Prerequisite:** Doctoral standing.

**Schedule Type:** Dissertation

**Contact Hours:** 15 other

**Grade Mode:** Satisfactory/Unsatisfactory-IP

**PH 80299 DISSERTATION II 15 Credit Hours**

(Repeatable for credit) Continuing registration required of doctoral students who have completed the initial 30 hours of dissertation and continuing until degree requirements are met.

**Prerequisite:** Doctoral standing.

**Schedule Type:** Dissertation

**Contact Hours:** 15 other

**Grade Mode:** Satisfactory/Unsatisfactory-IP